

Standard Method of Test for

Method of Sampling and Testing Open Graded Friction Course (OGFC)

SCDOT Designation SC-T-110 (09/11)

1. SCOPE

- 1.1 This method covers the procedures for sampling mixtures of open graded friction course as prepared for use in paving.

2. REFERENCED DOCUMENT

- 2.1 SC-T-75 and SC-T-102

3. SUMMARY OF TEST METHOD

- 3.1 None

4. SIGNIFICANCE AND USE

- 4.1 The purpose of using this procedure is to ensure that the sample of open graded friction course is representative when obtained from a truck or paver, and reduce sampling bias.

5. APPARATUS

- 5.1 Round-point shovel, large ice scoop (battered), ignition oven basket, gradation sieves, and lined sampling boxes.

6. TEST SPECIMAN

- 6.1 Ensure that the sample size of the OGFC is in accordance to SC-T-75 (Section 6.1 – Table No. 1) according to the job mix nominal maximum aggregate size.

7. PROCEDURE

- 7.1 Ensure the HMA technician uses every precaution to obtain samples that are truly representative of the OGFC mixture. Take care in sampling to avoid segregation of coarse aggregate and asphalt binder, and prevent any outside contamination by dust or other foreign matter.
- 7.2 Obtain a weight of the entire ignition oven basket assembly prior to sampling as stated in SC-T-75 (Section 7.3.1) test procedure. Carry the pre-weighed sample basket along with a round point shovel and a battered ice scoop to the truck sampling stand in order to obtain the OGFC sample for testing.

- 7.2.1 Ensure when taking samples from truck beds that a top portion is shoveled away with a shovel by removing at least 12 inches of the OGFC material prior to obtaining the test sample. This is done to eliminate the possibility of segregated material from load-out operations. Then with a round-point shovel or with the large ice scoop, dig straight down into the material to obtain sample. Place the OGFC sample into the ignition baskets as stated in SC-T-75 (section 7.3.3). ***In no case should the plant technician step into the bed of the truck. If necessary, the truck will need to be repositioned in order to reach a desired location.***
- 7.2.2 In the event that a sample needs to be taken during the laydown operations, sampling from the paver may be necessary. Ensure when taking samples from the paver that the hopper is at least half full and then have the hauling truck pull forward in order to obtain an OGFC sample. Obtain the sample by shoveling away the top OGFC material directly above the slat conveyors in the hopper with a round-point shovel and remove at least 12 inches of the OGFC material prior to obtaining the sample with a shovel or ice scoop. Place the OGFC sample into the ignition baskets as stated in SC-T-75 (section 7.3.3). Sampling from the paver screw conveyors will not be allowed.
- 7.2.3 Obtain two additional samples from the truck or paver of approximately the same size for split sample, verification, or IA testing. Both samples should be obtained from the same spot in the truck or paver and placed into a sample box that had been previously lined with lab release paper to prevent the asphalt binder from sticking or absorbing into the sample box. Label the boxes with the appropriate sample identification.
- 7.4 Verify that the correct sample size of OGFC has been obtained by weighing the sample and ignition oven basket assembly and sample together (SC-T-75 – Section 7.3.4). Calculate the weight of the sample, and proceed with the ignition oven test to determine the binder content of the OGFC mixture.
- 7.5 Once the ignition oven test has been completed, take the sample out of the ignition oven and allow the sample and baskets to cool to room temperature. Clean out the ignition baskets with a wire sieve brush being careful not to lose any coarse or fine aggregates and perform the gradation on the extracted aggregate per SC-T-102.

8. CALCULATIONS

- 8.1 Determine mixture results using the formulas established in SC-T-75 and SC-T-102.

9. REPORT

- 9.1 Report sample results on Form No. 400.03 and 400.05.